

**2022
SCHEDULE 22
SUMMARY
REPORT
Version 2**

**WASAGA BEACH
DRINKING WATER
SYSTEM**

For the period of
January 1st, 2022 to December 31st, 2022

Prepared for the Town of Wasaga Beach by the Ontario Clean Water Agency



This report was prepared in accordance with the requirements of [O.Reg 170/03, Schedule 22, Summary Reports for Municipalities](#) for the following system and reporting period:

Drinking-Water System Number:	220002137
Drinking-Water System Name:	Wasaga Beach Drinking Water System
Drinking-Water System Owner:	The Corporation of the Town of Wasaga Beach
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 1, 2022 – December 31, 2022

1. Issue(s) of Non-Compliance

A Ministry of Environment, Conservation and Parks (MECP) Drinking Water System Inspection was conducted on November 15, 2022 for the period covering September 14, 2021 to November 24, 2022. On February 1, 2023 the Inspection Report was issued and an Inspection Summary Rating Record (IRR) of 100% was received on April 3, 2023.

The following is a summary of non-compliances noted in the MECP Inspection Report, as well as the duration and the measures that were taken to correct the non-compliance. If any self-reported non-compliances were included in the inspection report, they will be noted in Table 1.

Table 1. Non-Compliances and Corrective Actions noted in the 2021/2022 MECP Inspection Report

Non-Compliance(s)	Duration	Required Actions & Corrective Actions
N/A	N/A	N/A

The following table (Table 2) is a summary of any incidents that the Operating Authority interpreted as instances where any requirements of the Act, the regulations, the system's approval, drinking water works permit (DWWP), municipal drinking water licence (MDWL), and any orders applicable were not met. The Operating Authority reported the following incidents to the MECP and confirmation of whether the incidents are considered non-compliances are noted in the MECP Inspection Report and included in Table 1.

Table 2. Self-Reported Incidents and Corrective Actions for the Reporting Period

Incident	Duration	Corrective Actions
Monitoring conditions of PTTW #8041-BFHJV2, Section 4.2 were not met. Data for monitoring well OW 78-1 was lost due to a well probe program failure. The program failure caused the probes to fail to restart after the previous month download.	December 2, 2021 to January 13, 2022	<ul style="list-style-type: none"> OCWA explored options for remote data download, eliminating the need to have units offline to download data. Remote wireless data loggers were installed at the monitoring wells for the Wasaga Beach DWS on December 13, 2022. No further action required.

Monitoring conditions of PTTW #8041-BFHJV2, Section 4.2 were not met. Data for monitoring well OW 373 was lost due to a well probe failure. The secondary probe was removed and reprogrammed for installation and the data was lost when the old probe was removed and the secondary probe was reprogrammed and installed.	January 13 to January 14, 2022	<ul style="list-style-type: none"> OCWA explored options for remote data download, eliminating the need to have units offline to download data. Remote wireless data loggers were installed at the monitoring wells for the Wasaga Beach DWS on December 13, 2022. No further action required.
Monitoring conditions of PTTW #8041-BFHJV2, Section 4.2 were not met. Data for monitoring well OW 373 was lost when the dataloggers were removed, prior to download.	November 3 to December 8, 2022.	<ul style="list-style-type: none"> OCWA explored options for remote data download, eliminating the need to have units offline to download data. Remote wireless data loggers were installed at the monitoring wells for the Wasaga Beach DWS on December 13, 2022. No further action required.

For information on any Adverse Water Quality Incident(s) that may have occurred during the reporting period, please refer to the Wasaga Beach Drinking Water System Annual Report (Section 11).

2. Assessment of Flowrates and Quantity of Water Supplied

The following tables (Table 3 to 10) summarize the quantities and flowrates of water supplied during the reporting period, including monthly averages and maximum daily flows as well as a comparison to the rated capacity and flowrates approved in the system's approval, DWWP or MDWL.

As required by the MDWL, regulatory flow measuring devices are checked/verified and where necessary calibrated. These checks/verifications/calibrations are performed annually by a third party to ensure the flow measuring devices are within acceptable deviation limits. For the Wasaga Beach DWS, flow measuring devices were last calibrated by Indus Control on July 21, 2022.

2.1 Treated Water

Municipal Drinking Water License (MDWL):	131-101 (Issue Number: 4)
Allowable Rated Capacity Powerline:	15,707 m ³ /day
Allowable Rated Capacity Jenetta:	15,707 m ³ /day

Allowable Flowrate into Treatment System:	Not listed in MDWL
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As per the MDWL, the maximum daily volume of treated water that flows from the treatment subsystem to the distribution system shall not exceed the listed rated capacity. However, the MDWL allows a system to be operated temporarily at a maximum daily volume and/or a maximum flowrate above the values set out in the MDWL for the purposes of fighting a large fire or for the maintenance of the drinking water system.

Table 3. Powerline Pumphouse Treated Water Annual and Monthly Average and Maximum Flows with Comparison to Rated Capacity and Total Volume for 2022

Powerline Pumphouse Treated Water Flow					
Timeframe	Average Flow (m ³ /day)	Percent of Rated Capacity	Maximum Flow (m ³ /day)	Percent of Rated Capacity	Total Volume (m ³)
January	3,941.68	25.10%	4,627.00	29.46%	122,192.00
February	3,903.50	24.85%	4,414.00	28.10%	109,298.00
March	3,005.52	19.13%	4,511.00	28.72%	93,171.00
April	3,800.60	24.20%	4,347.00	27.68%	114,018.00
May	5,752.35	36.62%	8,444.00	53.76%	178,323.00
June	6,930.67	44.12%	8,682.00	55.27%	207,920.00
July	7,757.16	49.39%	10,021.00	63.80%	240,472.00
August	7,874.42	50.13%	10,158.00	64.67%	244,107.00
September	6,194.78	39.44%	8,426.00	53.65%	185,843.50
October	4,054.97	25.82%	5,685.00	36.19%	125,704.00
November	3,680.00	23.43%	4,761.00	30.31%	110,400.00
December	3,414.10	21.74%	4,832.00	30.76%	105,837.00
2022	5,025.81	32.00%	10,158.00	64.67%	1,837,285.50

A review of flow information for the reporting period indicates that the Powerline Pumphouse operated within the rated capacity specified in the MDWL, for the maximum treated volume of treated water that flows from the treatment subsystem to the distribution system.

Table 4. Jenetta Pumphouse Treated Water Annual and Monthly Average and Maximum Flows with Comparison to Rated Capacity and Total Volume for 2022

Jenetta Pumphouse Treated Water Flow					
Timeframe	Average Flow (m ³ /day)	Percent of Rated Capacity	Maximum Flow (m ³ /day)	Percent of Rated Capacity	Total Volume (m ³)
January	1,921.13	12.23%	2,502.00	15.93%	59,555.00
February	1,918.25	12.21%	2,295.00	14.61%	53,711.00
March	2,802.71	17.84%	6,606.00	42.06%	86,884.00
April	1,946.03	12.39%	2,254.00	14.35%	58,381.00

Jenetta Pumphouse Treated Water Flow					
Timeframe	Average Flow (m³/day)	Percent of Rated Capacity	Maximum Flow (m³/day)	Percent of Rated Capacity	Total Volume (m³)
May	3,039.61	19.35%	4,634.00	29.50%	94,228.00
June	4,331.03	27.57%	7,498.00	47.74%	129,931.00
July	6,367.71	40.54%	8,867.00	56.45%	197,399.00
August	4,415.19	28.11%	8,152.00	51.90%	136,871.00
September	3,236.47	20.61%	4,618.00	29.40%	97,094.00
October	2,024.16	12.89%	2,728.00	17.37%	62,749.00
November	1,759.70	11.20%	2,539.00	16.16%	52,791.00
December	2,311.10	14.71%	6,959.00	44.31%	71,644.00
2022	3,006.09	19.14%	8,867.00	56.45%	1,101,238.00

Note: Treated water flow data is based off of the raw water flow data.

A review of flow information for the reporting period indicates that the Jenetta Pumphouse operated within the rated capacity specified in the MDWL, for the maximum treated volume of treated water that flows from the treatment subsystem to the distribution system.

A summary of flowrates of water that flows into the treatment system can be found in Table 6 and Table 8. The applicable MDWL for the reporting period did not list a maximum allowable limit for the flowrate of water that flows into a treatment subsystem.

2.2 Raw Water

Permit to Take Water Number (PTTW):	8041-BFHJV2
Allowable Maximum Raw Water Volume - Well P-1:	5,235.84 m ³ /day
Allowable Maximum Raw Water Flowrate - Well P-1:	60.6 L/sec
Allowable Maximum Raw Water Volume - Well P-2:	5,235.84 m ³ /day
Allowable Maximum Raw Water Flowrate - Well P-2:	60.6 L/sec
Allowable Maximum Raw Water Volume - Well P-3:	5,235.84 m ³ /day
Allowable Maximum Raw Water Flowrate - Well P-3:	60.6 L/sec
Allowable Maximum Raw Water Volume - Well P-4:	5,235.84 m ³ /day
Allowable Maximum Raw Water Flowrate - Well P-4:	60.6 L/sec
Allowable Maximum Raw Water Volume - Well J-1:	5,235.84 m ³ /day
Allowable Maximum Raw Water Flowrate - Well J-1:	60.6 L/sec
Allowable Maximum Raw Water Volume - Well J-2:	5,235.84 m ³ /day
Allowable Maximum Raw Water Flowrate - Well J-2:	60.6 L/sec
Allowable Maximum Raw Water Volume - Well J-3:	5,235.84 m ³ /day
Allowable Maximum Raw Water Flowrate - Well J-3:	60.6 L/sec

As per the PTTW, water shall only be taken from the specified source(s) and at the rates and amounts taken as specified in the permit.

The total daily water taking from the Powerline Road wells (P-2, P-3, and P-4) shall not exceed 15,707.52 m³/day and the combined maximum daily water taking for all wells shall not exceed 31,415.04 m³/day.

Table 5. Powerline Raw Water (Combined) Monthly Average, Maximum Flow and Total Volume for 2022

Raw Water Flow – Combined (P-2, P-3, P-4)					
Timeframe	Average Flow (m ³ /day)	Percent of Allowable Volume	Maximum Flow (m ³ /day)	Percent of Allowable Volume	Total Volume (m ³)
January	3,911.81	24.90%	4,598.00	29.27%	121,266.00
February	3,863.61	24.60%	4,583.00	29.18%	108,181.00
March	2,932.58	18.67%	4,517.00	28.76%	90,910.00
April	3,777.30	24.05%	4,549.00	28.96%	113,319.00
May	5,726.68	36.46%	8,312.00	52.92%	177,527.00
June	6,894.20	43.89%	8,700.00	55.39%	206,826.00
July	7,680.90	48.90%	10,009.00	63.72%	238,108.00
August	7,899.03	50.29%	10,109.00	64.36%	244,870.00
September	6,168.47	39.27%	8,200.00	52.20%	185,054.00
October	4,024.00	25.62%	5,670.00	36.10%	124,744.00
November	3,655.33	23.27%	4,749.00	30.23%	109,660.00
December	3,416.48	21.75%	4,836.00	30.79%	105,911.00
2022	4,995.87	31.81%	10,1009.00	64.36%	1,826,376.00

A review of flow information for the reporting period indicates that the system operated within the PTTW's maximum allowable daily raw water volume for Well P-2, Well P-3 and Well P-4 as well as the combined takings at the Powerline Well Field.

Table 6. Powerline Raw Water (Combined) Annual and Monthly Average and Maximum Flowrates for 2022

Raw Water Flowrate – Combined (P-2, P-3, P-4)		
Timeframe	Average Flowrate (L/sec)	Maximum Flowrate (L/sec)
January	117.73	129.00
February	117.30	162.60
March	98.93	143.00
April	108.45	151.30
May	110.32	130.70
June	116.36	184.60
July	114.77	134.00
August	117.21	168.20
September	115.28	170.30

Raw Water Flowrate – Combined (P-2, P-3, P-4)		
Timeframe	Average Flowrate (L/sec)	Maximum Flowrate (L/sec)
October	117.97	171.70
November	113.16	167.90
December	105.97	181.10
2022	112.74	184.60

A review of flow information for the reporting period indicates that the system operated within the PTTW's maximum allowable raw water flowrate for Well P-2, Well P-3 and Well P-4 as well as the combined wells at the Powerline Well Field. The combined maximum allowable raw water flowrate for the Powerline Wells is 181.8 L/s.

Table 7. Jenetta Raw Water (Combined) Monthly Average, Maximum Flow and Total Volume for 2022

Raw Water Flow – Combined (J-1, J-2, J-3)					
Timeframe	Average Flow (m³/day)	Percent of Allowable Volume	Maximum Flow (m³/day)	Percent of Allowable Volume	Total Volume (m³)
January	1,921.13	12.23%	2,502.00	15.93%	59,555.00
February	1,918.25	12.21%	2,295.00	14.61%	53,711.00
March	2,802.71	17.84%	6,606.00	42.06%	86,884.00
April	1,946.03	12.39%	2,254.00	14.35%	58,381.00
May	3,039.61	19.35%	4,634.00	29.50%	94,228.00
June	4,331.03	27.57%	7,498.00	47.74%	129,931.00
July	6,367.71	40.54%	8,867.00	56.45%	197,399.00
August	4,415.19	28.11%	8,152.00	51.90%	136,871.00
September	3,236.47	20.60%	4,618.00	29.40%	97,094.00
October	2,024.16	12.89%	2,728.00	17.37%	62,749.00
November	1,759.70	11.20%	2,539.00	16.16%	52,791.00
December	2,311.10	14.71%	6,959.00	44.30%	71,644.00
2022	3,006.09	18.14%	8,867.00	56.45%	1,101,238.00

A review of flow information for the reporting period indicates that the system operated within the PTTW's maximum allowable daily raw water volume for Well J-1, Well J-2 and Well J-3 as well as the combined takings at the Jenetta Well Field.

Table 8. Jenetta Raw Water (Combined) Annual and Monthly Average and Maximum Flowrates for 2022

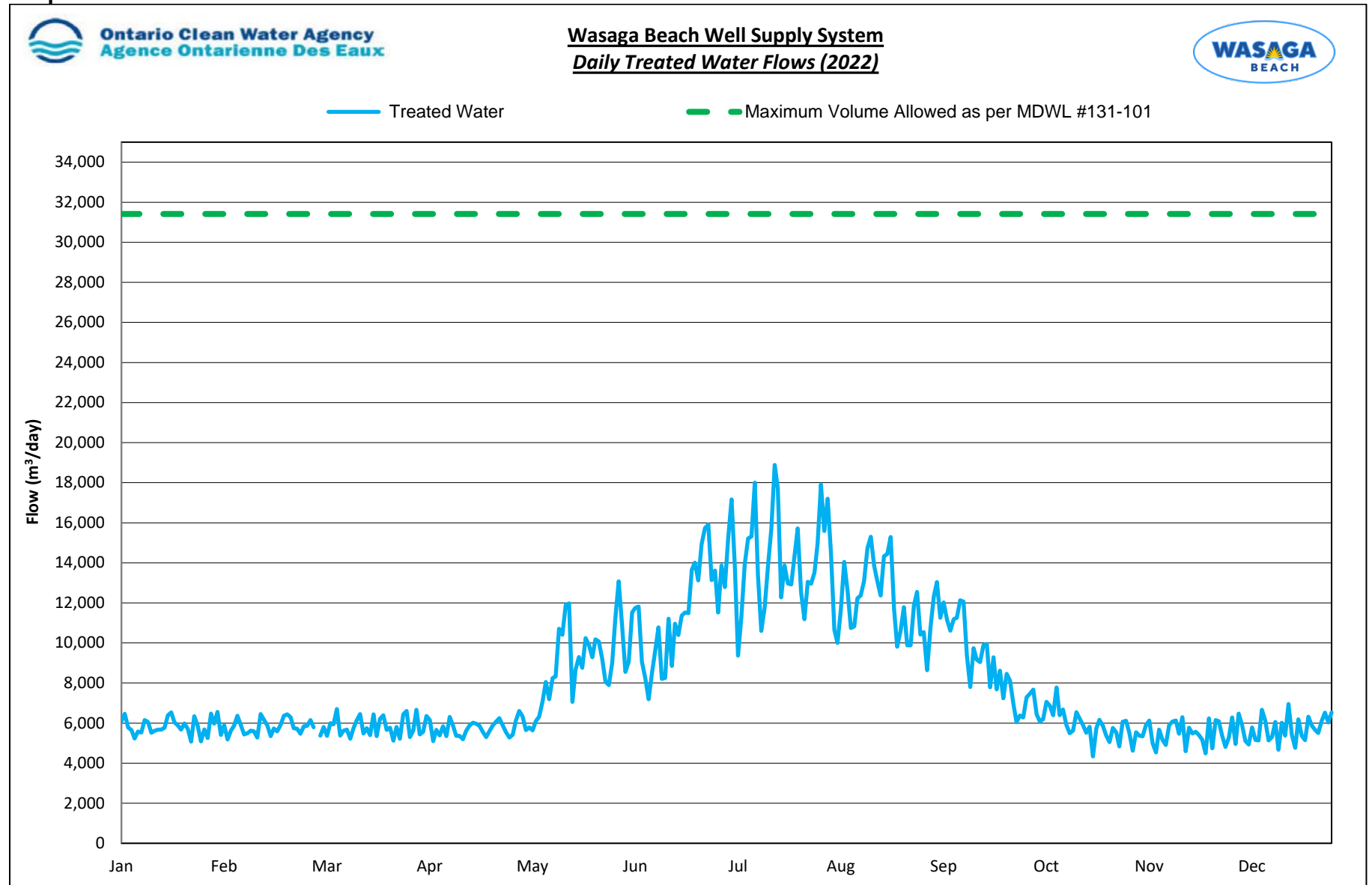
Raw Water Flowrate – Combined (J-1, J-2, J-3)		
Timeframe	Average Flowrate (L/sec)	Maximum Flowrate (L/sec)
January	56.81	122.50
February	58.76	124.10
March	79.27	139.10
April	48.31	114.10
May	59.29	120.30
June	72.02	118.70
July	92.24	122.80
August	65.13	120.10
September	59.61	119.30
October	58.36	118.70
November	59.13	111.20
December	61.27	123.40
2022	64.28	139.10

A review of flow information for the reporting period indicates that the system operated within the PTTW's maximum allowable raw water flowrate for Well J-1, Well J-2 and Well J-3 as well as the combined takings at the Jenetta Well Field. The combined maximum allowable raw water flowrate for the Jenetta Wells is 181.8 L/s.

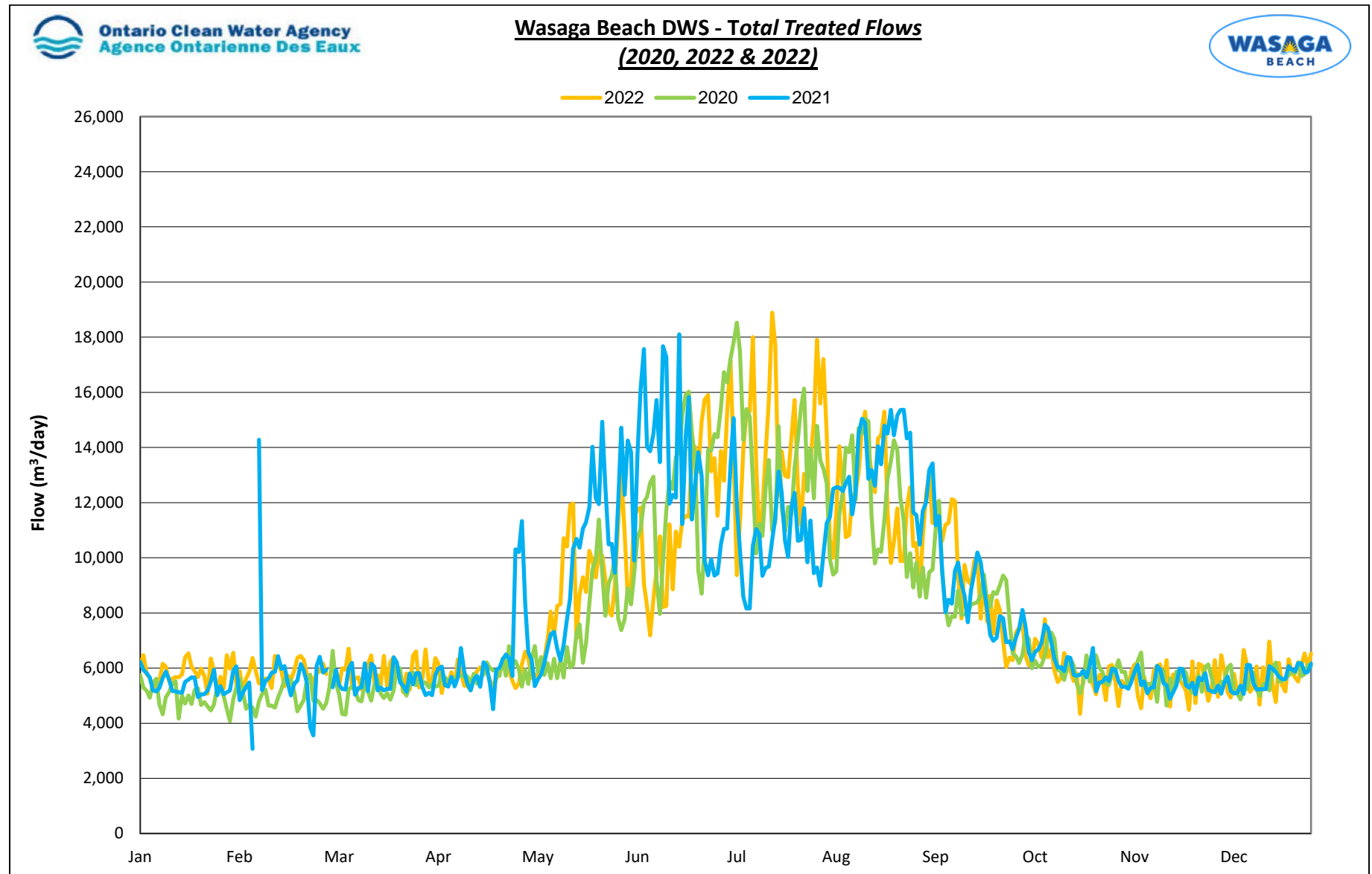
3. Annual Treated Water Flows and Quantity of Water Supplied

The following graphs (Graph 1 to 4) provide a visual representation of the combined total treated water flow data for the Wasaga Beach Drinking Water System. Graph 1 provides the annual total treated water flow data for 2022 compared to MDWL #131-101 maximum allowable volume. Graph 2 provides the total annual treated water flows in 2022, compared to 2020 and 2021. Graph 3 provides the annual total treated water flows for 2022, compared to 2007, the year in which the water metering program began in the Town of Wasaga Beach. Lastly, graph 4 provides a comparison of the annual total treated water flow data (m³) and the average daily and maximum and treated water flowrates (m³/day) from 2007 to 2022.

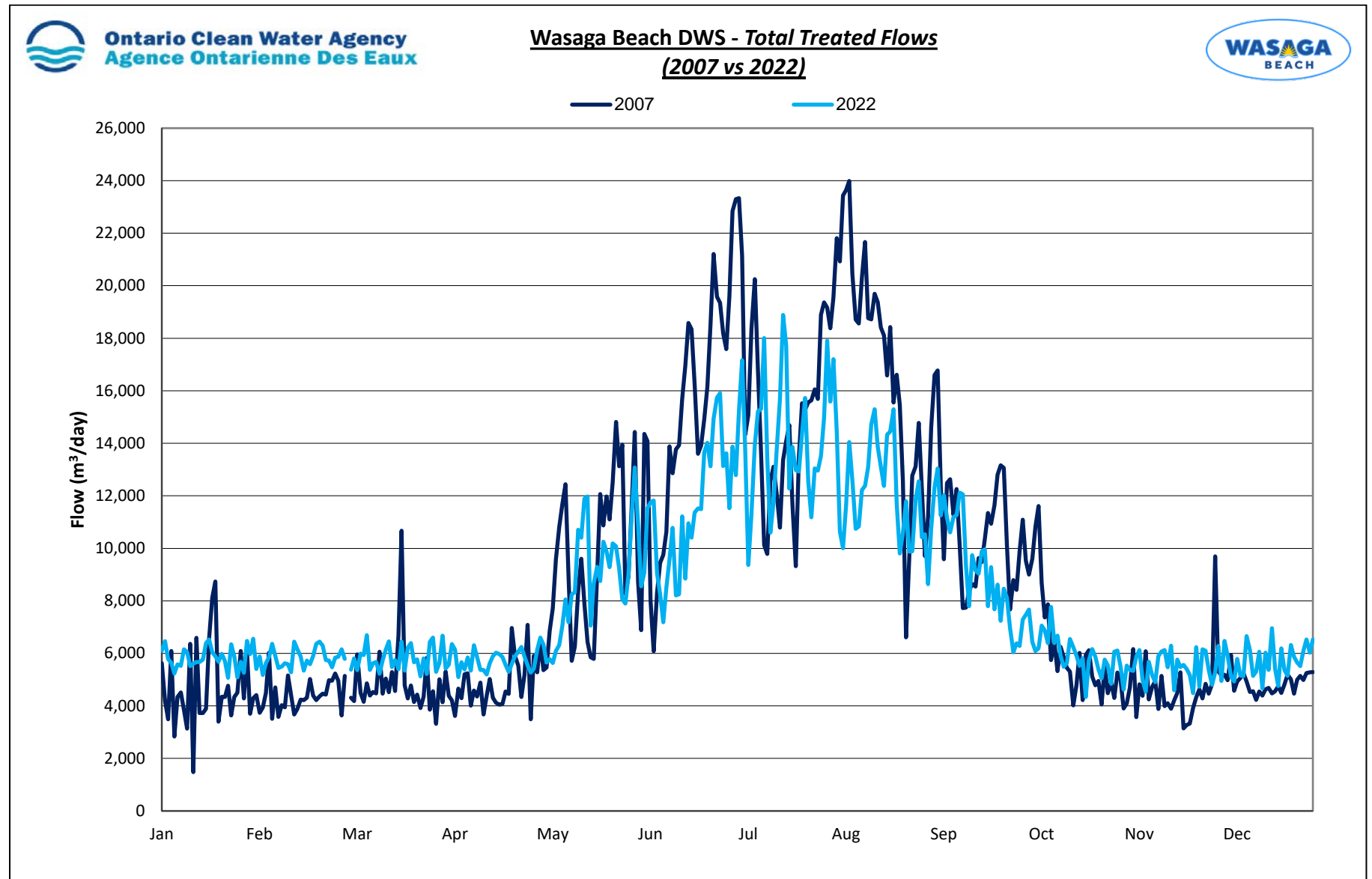
Graph 1. Annual Total Treated Water Flows for 2022



Graph 2. Annual Total Treated Water Flows Comparison of 2020, 2021 and 2022



Graph 3. Annual Total Treated Water Flows for 2022 Compared to 2007



Graph 4. Average Daily and Maximum Daily Treated Water Flows from 2007 to 2022

